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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,997	02/04/2004	Osamu Nozawa	0524-0139.01	4072
7590	08/25/2005			EXAMINER
Edward D. Manzo Cook, Alex, McFarron, Manzo, Cummings & Mehler, Ltd. 200 West Adams St., Ste. 2850 Chicago, IL 60606				VERSTEEG, STEVEN H
			ART UNIT	PAPER NUMBER
			1753	
			DATE MAILED: 08/25/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/771,997	NOZAWA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Steven H. VerSteeg	1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 01 August 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 26-29 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 26-28 is/are rejected.  
 7) Claim(s) 29 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 04 February 2004 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 26 is rejected under 35 U.S.C. 102(e) as being anticipated by US 6,475,354 B1 to Toyama.

3. For claim 26, Applicant requires an apparatus comprising a sputtering chamber wherein only one substrate at a time is introduced therein; a load lock chamber for receiving only one substrate at a time and placing the substrate on standby prior to introduction to the sputtering chamber wherein the load lock chamber is able to reach a predetermined degree of vacuum each time before the substrate is introduced into the sputtering chamber; an unload lock chamber; and a substrate conveying means for introducing a substrate one by one continuously at a constant interval from the load lock chamber to the sputtering chamber and from the sputtering chamber to the unload lock chamber.

4. Toyama discloses an apparatus (Figure 1) comprising a sputtering chamber 402, a load lock chamber 401, and a unload lock chamber 403. A single substrate 2 is conveyed through the system and processed in a batch style (col. 3, l. 12-22). All the chambers are capable of being evacuated at any point in time. Inherently, there is a substrate conveyance means otherwise the substrate would not move.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,286,452 B1 to Namiki et al. (Namiki) in view of US 4,096,026 to Takeuchi.

7. For claim 27, Applicant requires an apparatus comprising a substrate holder for holding a square substrate and having a rotation mechanism for rotating the substrate around its center axis; and a target placed in an opposed position with a center axis of the target deviating from the center axis of the substrate. For claim 28, Applicant requires the target is placed so that the opposed surfaces of the target and the substrate form a predetermined angle therebetween.

8. Namiki discloses a sputtering apparatus (col. 3, l. 6-8) comprising a target 32 on a cathode that is opposed to a substrate 39 on a substrate holder 4 that can rotate about its center axis (col. 3, l. 27-36). As can be seen from Figure 1, the center axis of the target is offset from the center axis of the substrate and because they are offset, there is inherently a predetermined angle between the substrate and target.

9. Namiki does not disclose holding a square shaped substrate.

10. Takeuchi discloses that when processing a photomask blank by sputtering, the photomask blank substrate can be square-shaped (Example 5).

11. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Namiki to utilize a square shaped substrate because of the desire to produce a photomask blank.

***Response to Amendment***

12. All rejections and objections presented in the office action mailed March 9, 2005 are withdrawn in light of the amendment.

***Allowable Subject Matter***

13. Claim 29 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: it is neither anticipated nor obvious over the prior art of record to have an apparatus as claimed by Applicant in claim 29.

15. Namiki discloses several sensors for detecting the substrate, but none of the sensors detect the rotation position of the substrate. There is no motivation to provide such a detection means unless hindsight reasoning is used.

***Response to Arguments***

16. Applicant's arguments with respect to claims 26-28 have been considered but are moot in view of the new ground(s) of rejection.

***General Information***

For general status inquiries on applications not having received a first action on the merits, please contact the Technology Center 1700 receptionist at (571) 272-1700.

For inquiries involving Recovery of lost papers & cases, sending out missing papers, resetting shortened statutory periods, or for restarting the shortened statutory period for response, please contact Denis Boyd at (571) 272-0992.

For general inquiries such as fees, hours of operation, and employee location, please contact the Technology Center 1700 receptionist at (571) 272-1300.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H. VerSteeg whose telephone number is (571) 272-1348. The examiner can normally be reached on Mon - Thurs (6:30 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven H VerSteeg  
Primary Examiner  
Art Unit 1753

shv  
August 18, 2005